

SGG CLIMAPLUS®

*Enhanced thermally insulating  
(low-emissivity) double-glazed  
units*

Technical Sheet  
United Kingdom

# SGG CLIMAPLUS®

## *Enhanced thermally insulating (low-emissivity) double-glazed units*

### Description

SGG CLIMAPLUS double-glazed units, incorporate a low-emissivity coating on one face. This provides a significantly improved, or very low, U-value compared to ordinary SGG CLIMALIT double glazing.

SGG CLIMAPLUS is manufactured in accordance with the SAINT-GOBAIN GLASS CLIMALIT process whereby two panes of glass are assembled vertically on either side of a hollow aluminium spacer bar filled with desiccant, then hermetically sealed using the latest dual seal technology.



*Marie-Elisabeth-Lüders-Haus - Berlin, Germany  
Architect: SBA Stephan Braunfels Architekten*

### Applications

SGG CLIMAPLUS double-glazed units can be used in numerous applications for both new-build and refurbishment projects:

- residential (apartment blocks and private houses):
- windows and patio doors
- rooflights
- doors
- conservatories, balconies and sun-rooms
- commercial (office blocks and public buildings):
- façades
- curtain walling
- glass roofs.

The SGG CLIMAPLUS range is designed to bring greater comfort and energy efficiency to any glazed area.

## Advantages

- Noticeable reduction in heating costs
- Improved comfort:
  - virtually no cold spots near glazed areas
  - maximum use of space
  - reduced risk of condensation on inner panes.
- The potential for large areas of glazing whilst observing the constraints of current building regulations.
- Environmentally friendly by reducing energy consumption and the level of harmful CO<sub>2</sub> emissions associated with the greenhouse effect.

These advantages are coupled with many other performance advantages:

- a high level of light transmittance which allows maximum natural light to pass through the glass
- neutral in both transmission and reflection
- option to combine other functions:
  - self-cleaning effect
  - acoustic insulation
  - safety and security
  - solar control
  - decoration
  - maintaining privacy.

SGG CLIMAPLUS units enable most window frames to comply with the requirements of current building regulations.

## Range

Standard SGG CLIMAPLUS units can incorporate a low-emissivity glass from the SGG PLANITHERM family and are available in the following configurations:

- SGG CLIMAPLUS argon (argon-filled cavity)
- SGG CLIMAPLUS air (air-filled cavity).

Many other glass types can be included in the SGG CLIMAPLUS configuration to offer multi-functional glazing to meet a variety of needs.



*Private residence*

## Performance

SGG CLIMAPLUS is nearly 3 times more thermally efficient than an ordinary double-glazed unit (U-value as low as 1.2 W/m<sup>2</sup>K compared to 2.9 W/m<sup>2</sup>K for a standard double-glazed unit).

Double-glazing		SGG PLANILUX			
External pane		SGG PLANITHERM TOTAL			
Internal pane		SGG PLANITHERM TOTAL			
Composition	mm	4 (12) 4	4 (16) 4	6 (12) 6	6 (12) 6
Thickness	mm	20	24	24	28
Weight	kg/m <sup>2</sup>	20	20	30	30
Low-E coating position	face	3	3	3	3
<b>Light factors</b>					
LT	%	79	79	77	77
LRe	%	12	12	11	11
LRi	%	12	12	11	11
UV	%	35	35	30	30
<b>Energy factor</b>					
T	%	54	54	51	50
Re	%	23	23	21	21
A1	%	12	12	17	17
A2	%	10	10	12	12
Solar factor g		0,63	0,64	0,61	0,61
Shading Coefficient		0,73	0,73	0,70	0,70
U-value	W/(m <sup>2</sup> .K)				
	Air	1,7	1,4	1,7	1,4
	Argon 90 %	1,4	1,2(1)	1,3	1,2(1)
<b>Sound reduction indices</b>					
Rw	dB	31	29	33	34
C	dB	-1	-1	-1	-2
Ctr	dB	-4	-4	-3	-5
RA	dB	30	28	32	32
RA,tr	dB	27	25	30	29

(1) >93% argon filled cavity = 1.1 W/m<sup>2</sup>K

## Standards and Regulations

SGG CLIMAPLUS double-glazed units meet the requirements of standard BS EN 1279 and will receive the relevant CE marking when it is officially in force.



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